



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
FUEL
Machine Id
311
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (42 QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0109602	PCA70891411	PCA14615003
Sample Date		Client Info		17 Jun 2024	26 Jul 2017	04 Apr 2015
Machine Age	mls	Client Info		558700	176394	24473
Oil Age	mls	Client Info		16000	14130	24473
Filter Age	mls	Client Info		16000	14130	---
Oil Changed		Client Info		Changed	N/A	N/A
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				ABNORMAL	NORMAL	ABNORMAL

WEAR

Moderate concentration of visible metal present. All component wear rates are normal.

Iron	ppm	ASTM D5185m	>65	31	10	45
Chromium	ppm	ASTM D5185m	>5	2	1	2
Nickel	ppm	ASTM D5185m	>3	<1	0	▲ 2
Titanium	ppm	ASTM D5185m	>5	<1	---	---
Silver	ppm	ASTM D5185m	>2	<1	0	1
Aluminum	ppm	ASTM D5185m	>35	21	9	13
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>180	3	2	376
Tin	ppm	ASTM D5185m	>8	<1	0	7
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	▲ MODER	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

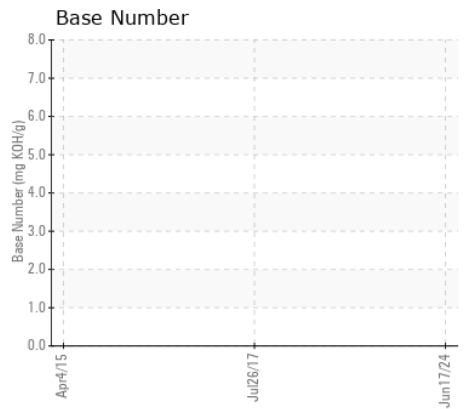
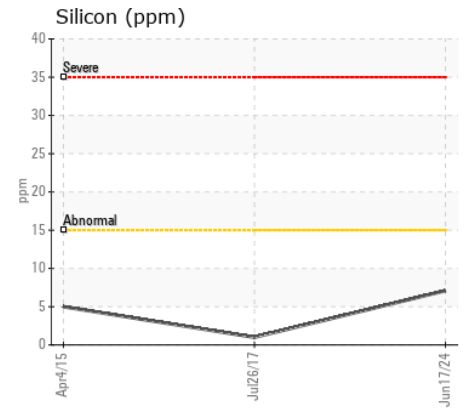
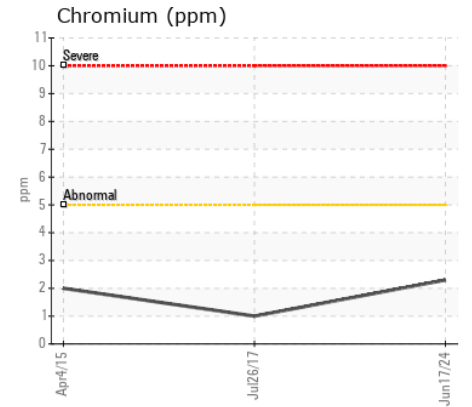
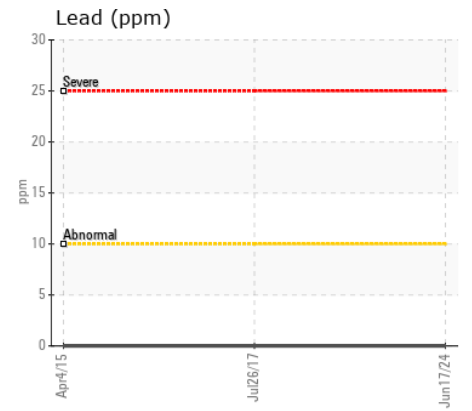
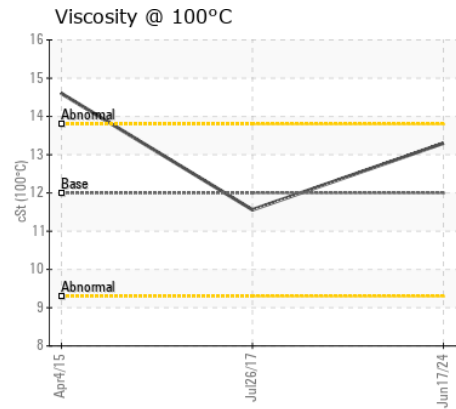
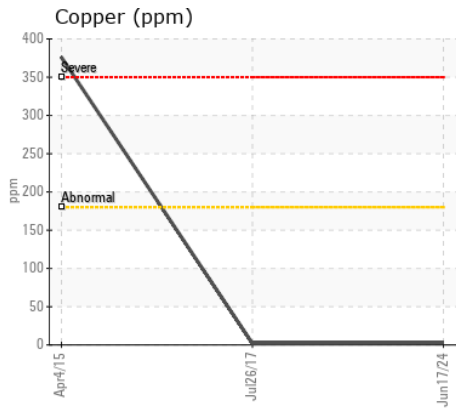
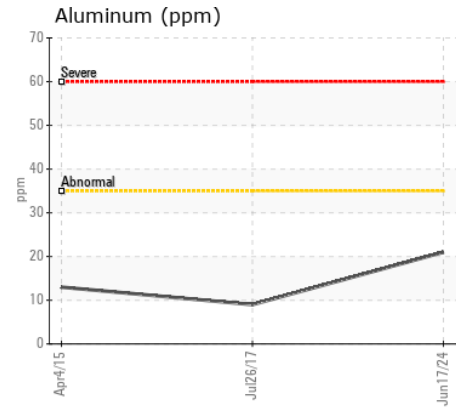
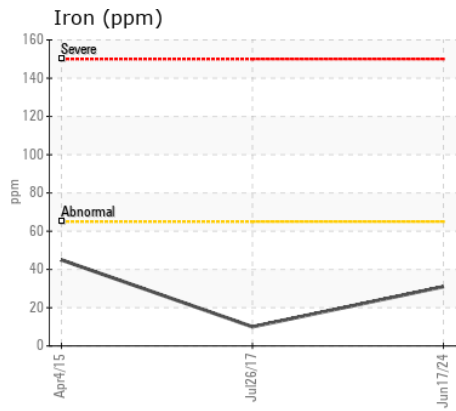
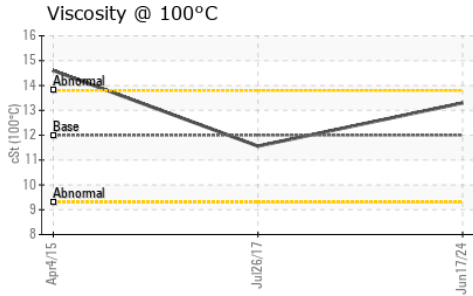
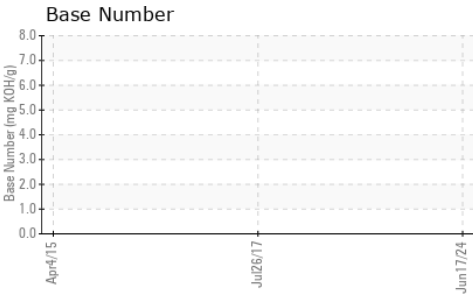
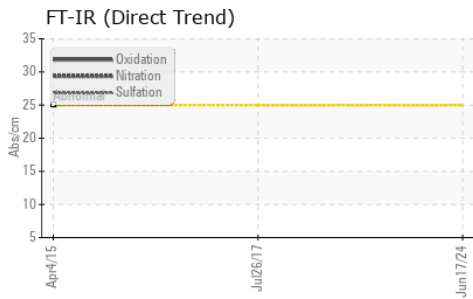
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>15	7	1	5
Potassium	ppm	ASTM D5185m	>20	9	11	39
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.7	0.6
Nitration	Abs/cm	*ASTM D7624	>20	7.9	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.0	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		2	2	10
Boron	ppm	ASTM D5185m	2	15	1	33
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	50	39	60	51
Manganese	ppm	ASTM D5185m	0	<1	---	---
Magnesium	ppm	ASTM D5185m	950	257	938	852
Calcium	ppm	ASTM D5185m	1050	1885	1066	1291
Phosphorus	ppm	ASTM D5185m	995	852	951	903
Zinc	ppm	ASTM D5185m	1180	1105	1136	1122
Sulfur	ppm	ASTM D5185m	2600	3245	2679	2363
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.4	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		7.96	---	N/A
Visc @ 100°C	cSt	ASTM D445	12.00	13.3	11.56	▲ 14.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0109602
Lab Number : 06230405
Unique Number : 11113898
Test Package : MOB 2

Received : 08 Jul 2024
Tested : 09 Jul 2024
Diagnosed : 10 Jul 2024 - Don Baldrige

DENNIS K BURKE INC - INTERNAL SAMPLES
 555 CONSTITUTION DR
 TAUNTON, MA
 US 02780
 Contact: GREG DUNKER

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:
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